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ABSTRACT

Competence refers to a state of being well qualified to perform an activity, task, or job function. According to the International Board of Standards for Training, Performance and Instruction (IBSTPI), a competency involves a related set of knowledge, skills, and attitudes that enables a person to effectively perform the activities of a given occupation or function in such a way that meets or exceeds the standards expected in a particular profession or work setting. One of the ways to validate a person that has demonstrated relevant competencies is through a certification process. Teacher certification is a common practice, and the notion of teacher competencies is fairly well established. The delivery environment (classroom-based, Internet-based, laboratory-based, hybrid environments, and so on) is a particularly relevant condition to identify competencies for online teaching. Becoming an effective online moderator requires training; there are competencies unique to online environments. In online asynchronous discussions, the moderator's competencies involve allowing learners time for reflection, keeping discussions alive and on a productive path, and archiving and organizing discussions to be used in subsequent lessons. In online synchronous discussions, the moderator must establish ground rules for discussion, animate interactions with minimal instructor intervention, sense how online text messages may appear to distant learners, and be aware of cultural differences. Implications of competencies for online teaching are discussed. (Contains 26 references and a list of related Web sites.) (AEF)

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Competencies for Online Teaching

By J. Michael Spector and Ileana de la Teja

Information technology is changing the way people live and learn. Not surprisingly, information technology (IT) is also transforming the nature of teaching. These remarks provide a framework for thinking about such changes and exploring work in progress that is relevant to the development of competencies specific to teaching online (i.e., teaching occurring outside a traditional classroom, typically in a virtual classroom facilitated by use of the Internet).

Competence, Competencies and Certification

Competence refers to a state of being well qualified to perform an activity, task or job function. When a person is competent to do something, he or she has achieved a state of competence that is recognizable and verifiable to a particular community of practitioners. A competency, then, refers to the way that a state of competence can be demonstrated to the relevant community. According to the International Board of Standards for Training, Performance and Instruction (IBSTPI), a competency involves a related set of knowledge, skills and attitudes that enable a person to effectively perform the activities of a given occupation or function in such a way that meets or exceeds the standards expected in a particular profession or work setting (Richey et al., 2001). The structure and assessment of competencies may differ from one community of practice to another and even within a community. To facilitate a common understanding of competencies in the context of online and distributed learning some specifications have been elaborated (IMS, 2001). Typically, a competency is divided into specific indicators describing the requisite knowledge, skills, attitudes and context of performance.

There are different ways to validate that a person has demonstrated the relevant competencies (Le Boterf, 1998, 2000, 2001). One of them is through a certification process (Lévy-Leboyer, 1999). Teacher certification is a common practice, and the notion of teacher competencies is fairly well established. However, competencies are generally associated with highly formalized professional activities and not applied to ill-defined tasks (those involving variable and uncertain circumstances, procedures and outcomes). Ill-defined tasks certainly include many forms of teaching. This narrow view of competence runs counter to common sense and professional practice, but brings into attention the mainstream approach to elaboration of teacher competencies where it is essential to clearly identify the conditions of teaching (Paquay et al., 1998). The delivery environment (classroom-based, Internet-based, laboratory-based, hybrid environments, and so on) is a particularly relevant condition to identify competencies for online teaching.

Online and Classroom Teaching

Information technology can be integrated into both online and classroom settings, but the interaction between these technologies and new approaches to learning and instruction may vary (Spector & Anderson, 2000). The range of activities available in online settings and the multiple conditions of time in which they take place are evidence that the technology demands placed on online teachers are somewhat more significant than those associated with classroom teachers (Table 1).

Table 1. Comparison of Online and Classroom Teaching Activities

Setting	Location of Learners	Use of IT	Temporality of Activities	Type of Activity
Classroom	At the same location	Presentation of topics Consultation	Synchronous	Similar for all learners Mainly teacher-led Discussions & small group work
Online	Distributed	Presentation of topics Consultation Management Production (e.g., distributed, collaborative edition of a text) Wide range of interactions (one-to-one; one-to-many; many-to-one; & many-to-many)	Synchronous (e.g., tele- and video-conferencing, simultaneous broadcasts) Asynchronous (e.g., threaded discussions) Synchronous & asynchronous (e.g., live broadcast of a remote speaker & archiving for reuse)	According to individuals Mainly learner-centered Individual and/or collaborative work (small, medium or large groups)

Much of what has already been published with regard to online teaching has focused on technical skills and requirements of successfully moderating and facilitating online discussions and chat sessions (e.g., Collison et al., 2000; Kearsley, 2000; Rosenburg, 2001). This body of literature suggests that becoming an effective online moderator requires training and that there are competencies unique to online environments.

In online asynchronous discussions, the moderator's competencies involve (1) allowing learners time for reflection, (2) keeping discussions alive and on a productive path, and (3) archiving and organizing discussions to be used in subsequent lessons.

In online synchronous discussions (e.g., chat), the moderator must (1) establish ground rules for discussion, (2) animate interactions with minimal instructor intervention, (3) sense how online text messages may appear to distant learners, and (4) be aware of cultural differences.

How are these competencies unique to online teaching? At the applied level, animating discussions, displaying cultural sensitivity and so on, apply to all teachers. At the environment level, however, the ways in which a teacher demonstrates such competence is quite different, which suggests that there are competencies unique to online settings. According to Belisle and Linard (1996) the use of IT in teaching calls for additional competencies adapted to new roles and circumstances.

Teaching competencies and online teaching competencies have generally been considered separately. However, efforts to interrelate the two are being undertaken by IBSTPI in association with the research center for Télé-université, Université de Québec (LICEF).

Implications of Competencies for Online Teaching

The current interest in competencies for online teaching is coming from business and industry, primarily with regard to technical training and professional development courses offered in online settings. It is quite likely that some of the interest in competencies for online teaching is a result of hastily-crafted online courses and inadequate preparation of online facilitators. Clearly technology offers the potential to create and implement highly engaging and effective online environments to support a wide variety of learning goals. It is also quite clear that our capacity to make effective use of information technology in educational settings is impaired by inadequate preparation of teachers (as well as learners) and by a shortage of properly trained instructional designers and educational support personnel.

The development of competencies for online teaching should lead to the associated development of training for online teachers and (in some cases) to the certification of online teachers. To develop competencies for online teachers is not without challenge. Competencies are dynamic in nature, and they largely depend on the relevant social context (Le Boterf, 1994). The constant transformation of IT makes the development of competencies for online teachers a continuous process and demands continuing professional preparation and training for online teachers. Such endeavors will improve our ability to make effective use of technology in learning and instruction.

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Related Web Sites

Centre de recherche LICEF, Télé-université--A research center dedicated to cognitive informatics and training environments with special interest, expertise and tools related to distance education.
http://www.licef.teluq.uquebec.ca/anglais/index.html

The Masie Center--An international e-lab and ThinkTank dedicated to exploring the intersection of learning and technology.
http://www.masie.com/masie/default.cfm?page=default

Resources for Moderators and Facilitators of Online Discussion--A growing set of resources for moderators of online discussion in both academic and non-academic settings. *http://www.emoderators.com/moderators.shtml*

Specialization Program in International Online Education (SPICE)--Provides a shared base of knowledge, skills, and values regarding online education and training. *http://www.nettskolen.com/in_english/*

TechnoCompetences--An organization that developed a dictionary and a profile of competencies in the multimedia and telecommunications domains. *http://www.technocompetences.qc.ca/site/frame_rech_comp.php*

TeleLearning Network of Centres of Excellence (TLNCE)--Tracks leading telelearning research advances in collaboration with university and industry partners throughout the world. *http://www.telelearn.ca/index.html*

Vignettes for Training (VFT)--An e-learning consulting and systems development company that assists clients with e-learning systems design and implementation, content development and conversion, and web hosting. *http://www.vignettestraining.com/index.htm*

Web-based Education Commission--Established by the U.S. Congress to develop policy recommendations geared toward maximizing the educational promise of the Internet for pre-K, elementary, middle, secondary, and postsecondary education learners. *http://www.hpcnet.org/cgi-bin/global/a_bus_card.cgi?store_SiteID=154797*

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